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INSTITUTE OF SOCIAL
MEDICINE

10, PARKS ROAD
OXFORD

Burgh of Coatbridge

REPORT

of the

Medical Officer of Health

for the

Years 1946-1947.

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Printed by John Williamson, Sunnyside Road, Coatbridge

PUBLIC HEALTH DEPARTMENT,
MAIN STREET,
COATBRIDGE,

August, 1947.

The Department of Health for Scotland, and
The Provost, Magistrates and Councillors of the
Burgh of Coatbridge.

GENTLEMEN,

I have the honour to submit for your consideration my Report on the Health of the Burgh of Coatbridge for the year 1946.

I am, Gentlemen,

Your obedient servant,

ROBERT CORDINER,
Medical Officer of Health.

INTRODUCTION.

The year 1946 shows a continuation of the favourable trend in the vital statistics of the Burgh. The exceptions are the figures showing the incidence of and deaths rates from pulmonary tuberculosis to which reference is made in the Report. The most notable incident was the outbreak of para-typhoid B. fever in August, the history and dimensions of which was large enough to attract national interest. I would draw attention to my remarks under Water Supplies, Mosquitoes and Home Helps ; other than these the report is mainly descriptive of routine work.

VITAL STATISTICS.

TABLE No. 1.

SUMMARY OF VITAL STATISTICS, 1946.

Area	3081 acres
Population	44,503
Inhabited Houses	10,935

	No. Regd. in District	Transfers		No: corrected for Transfers			Rate per 1000 of Est. Pop. (Both Sexes)
		Out	In	Both Sexes	M.	F.	
Live Births (includ. illeg.)	726	18	400	1,108	553	555	23·5
Live Births (illegitimate)	31	2	19	48	26	22	[2] 4·3
Still-Births ...	18	—	24	42	21	21	37
Marriages ...	356	—	—	—	—	—	[3] 7·6
Deaths All causes ...	444	15	135	564	296	268	* 12·7
Tuberculosis (All forms)	—	—	—	57	32	25	1·28
Tuberculosis (Resp. system)	—	—	—	49	28	21	1·10
Principal Epidemic (Dis)[1]	—	—	—	9	6	3	0·20
Children aged under One Year ...	—	—	—	69	31	38	[4] 62

(1) Typhoid fever, paratyphoid fevers, cerebro-spinal fever, scarlet fever, whooping cough, diphtheria, influenza and measles.

(2) per 100 live births.

(3) per 1,000 total births (including still-births).

(4) per 1,000 live births.

*Rate adjusted for Age and Sex Distribution=14·3.

TABLE No. 2.

DEATHS FROM INFECTIOUS DISEASES.

	No.	Rate per 1000 of Population
Measles	—	—
Scarlet Fever	—	—
Whooping Cough	4	0·09
Diphtheria	—	—
Influenza	4	0·09
Cerebro Spinal Fever	1	0·02
Tuberculosis (Pulmonary)	49	1·10
Tuberculosis (Non-Pulmonary)	8	0·18
Pneumonia	21	0·47

TABLE No. 3.

DEATHS FROM NON-INFECTIOUS DISEASES.

	No.	Rate per 1000 of Population
Heart Disease	134	3·02
Bronchitis	33	0·74
Cerebral Haemorrhage	46	1·04
Old Age	24	0·54
Cancer	69	1·5

MATERNITY AND CHILD WELFARE.

STILL-BIRTHS.

There were 42 still-births registered under the Registration of Still-Births (Scotland) Act, 1938. 18 of these occurred within the Burgh and the probable cause of death is shown in the accompanying Table No. 4.

TABLE No. 4.

CAUSES OR PROBABLE CAUSES OF STILL-BIRTH.

Prematurity	4
Precipitate Labour	2
Malformation of Foetus	3
Prolapse of Cord	3
Illness of Mother	3
Other Causes	3

INFANT MORTALITY.

The number of deaths of children aged under one year was 69 ; 31 males and 38 females, representing an infantile mortality rate of 62 per 1,000 live births. This is the lowest figure ever recorded in the Burgh. The greatest single cause of death was prematurity. Details of certified cause of death with age and sex classification are given in Table No. 5. Table No. 6 shows the rate for the past ten years. Table No. 7 shows causes of deaths of children between one and five years.

TABLE No. 5.

Cause of Death.	Under 1 Week		1 Week and under 4 Weeks		1 and under 3 Months		3 and under 6 Months		6 and under 12 Months		Total		Grand Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Congenital Debility ...	3	3	1	1	2						6	4	10
Whooping Cough ...						1	1	1			1	2	3
Diarrhoea									1	1	1	1	2
Pneumonia				2	1	2	5	2	2	1	8	7	15
Prematurity	6	14		4	1	1					7	19	26
Convulsions					2			3	2		4	3	7
Other Causes	3	1					1			1	4	2	6
	12	18	1	7	6	4	7	6	5	3	31	38	69

TABLE No. 6.

DEATHS OF CHILDREN UNDER ONE YEAR.

Year	Number of Deaths	Rate per 1,000 live Births
1937	99	99
1938	87	84
1939	96	96
1940	82	80
1941	100	98
1942	75	77
1943	98	72
1944	69	69
1945	60	67
1946	69	62

TABLE No. 7.

DEATHS OF CHILDREN BETWEEN ONE AND FIVE YEARS.

Causes.	Numbers.
Whooping Cough	1
Pulmonary Tuberculosis	2
Non-Pulmonary Tuberculosis	3
Diarrhoea	2
Tumours	2
Diseases of Nervous System	3
Other Causes	7
Total	20

MATERNAL MORTALITY.

There was only one death attributed to puerperal causes. This gives the very low rate of 0·9 per 1000 live births. The Table below gives the figures for the last ten years.

TABLE No. 8.

Year	Number of Deaths	Rate per 1,000 Live Births
1936	7	6·78
1937	7	7·18
1938	5	4·84
1939	12	12·06
1940	5	4·9
1941	2	1·86
1942	4	3·94
1943	4	3·57
1944	5	4·81
1945	1	1·07
1946	1	0·90

TABLE No. 9.

STATISTICS RELATING TO MATERNITY AND CHILD WELFARE SERVICES.

1. BIRTHS.

(*a*) Total number of births occurring in the area during year	1137
(*b*) Number of Births in (*a*) classified according to nature of attendance at confinement :—	
(i). Maternity Service Scheme Cases	
(*a*) with Doctor	217
(*b*) without Doctor	435
(ii) Other domiciliary cases	
(*a*) with Doctor	114
(*b*) with Midwife alone ... ... (No doctor booked)	92
(*c*) conducted by outdoor staff of Institution	0
(*d*) without Doctor or Midwife	0
(iii) Institutional Cases (including those in private Maternity and Nursing Homes)	279

2. HOME VISITATION.

	Number Visited for first time.	Total Visits.
Expectant Mothers	14	127
Infants	1115	1206
Children (1-5 years)	0	3976

3. ANTE-NATAL AND POST-NATAL CLINICS (whether provided at Child Welfare Centres or at other premises, *e.g.* hospitals).

	Ante-Natal	Post-Natal
(i) Number of Clinics at end of year provided by Local Authority	1	1
(ii) Number of Clinics at end of year provided by Voluntary Bodies	0	0
(iii) Total Number of women who attended at the Clinics during year	48	22

4. CHILD WELFARE CLINICS.

(*a*) Number of Clinics at end of year provided by Local Authority	1
(*b*) Number of Clinics at end of year provided by Voluntary Bodies	0
(*c*) Number of children attending during year :—	
(i) under 1 year of age	191
(ii) 1 year of age and over	110
(*d*) Total number of attendances during year :—	
(i) Under 1 year of age	2256
(ii) 1 year of age and over	1203

5. SPECIAL TREATMENT CENTRES.

NUMBER OF CASES TREATED DURING YEAR	Mothers	Children
(1) Teeth	—	—
(2) Eyes	—	—
(3) Ear, Nose and Throat	—	—
(4) Other Ailments	15	46
(5) Ultra-Violet Light Treatment	32	217
(6) Orthopaedic	2	5

6. MOTHER AND BABY HOMES.—None.

7. RESIDENTIAL NURSERIES AND CHILDREN'S HOMES.—None.

8. HOME AND DOMESTIC HELPS.—None.

MATERNITY SERVICES.

The Maternity Services Scheme under the Maternity Services (Scotland) Act, 1937, operated smoothly throughout the year. All the general practitioners in the area have accepted service under the Scheme. No full-time midwives are employed, the midwifery service being supplied by arrangement with 11 private practising midwives. During the year there were 652 births under this Scheme.

MIDWIVES (SCOTLAND) ACT, 1915.

The total number of cases of emergency in which medical practitioners have been called in under section 22 of the Act is 102. Table No. 10 classifies these according to the nature of the emergency.

During the year 13 midwives gave notice under Section 18 of their intention to practice in the area.

TABLE No. 10.

EMERGENCIES UNDER MIDWIVES (SCOTLAND) ACT, 1915.

Ruptured Perineum	82
Accidental Haemorrhage	1
Illness of Patient	[illegible]
Instrumental Delivery	8
Prolapse of Cord	1
Retained Placenta	3
Delayed Labour	4
Uterine Inertia	1
Abnormality of Foetus	1
Total	102

INFECTIOUS DISEASES.

Total number of notifications received in 1946	468
Average for the past ten years	404

The total number of notifications was above the average and was due to the outbreak of paratyphoid B. fever in the autumn. During the year there were several instances of food handlers who were in contact with cases of infectious disease being asked to remain off work until bacteriological specimens obtained from them were proved to be negative. In none of the cases was compensation paid.

Scarlet Fever.—Of the 182 cases notified 137 cases were removed to hospital. The low removal rate was due to the hospital beds normally reserved for cases of scarlet fever being used for cases of paratyphoid fever. There was a fall in the number of notifications in March and the lowered incidence was maintained until September. In the last quarter of the year 121 cases were notified, the peak being in November with 62 cases. There was no evidence of a local cause for the epidemic which was associated with an increase in the number of cases in neighbouring areas.

The disease was of a very mild type and there were no deaths.

In view of the mild nature of the disease and overtaxed hospital accommodation many cases were nursed at home. This practice met with strong opposition from many parents, showing how difficult it is to alter the mistaken belief that scarlet fever is to be more feared than measles and whooping cough.

If during outbreaks of whooping cough and measles, cases of scarlet fever were nursed at home and the released beds used for the former disease the mortality rate from these diseases would be considerably reduced.

Diphtheria.—26 cases were notified during the year. This is the lowest figure ever recorded in the Burgh. While immunisation may have contributed to the lower incidence, the number of immunised children in the Burgh is not high enough to account for it entirely. 23 cases were removed to hospital. In 13 cases the diagnosis was confirmed. Two of the confirmed cases were in immunised persons, the remaining 11 occurring in non-immunised children. There were no deaths from the disease.

Erysipelas.—14 cases were notified and four removed to hospital. There were no deaths from the disease.

Dysentery.—There were no cases of dysentery notified during the year.

Pneumonia.—69 cases of acute primary pneumonia and 15 cases of acute influenzal pneumonia were notified. 55 cases were removed to hospital. Including all forms of pneumonia there were 21 deaths from the disease.

TABLE No. 11.

NOTIFICATIONS OF INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS). 1937-1946.

	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Cerebro-spinal Fever ...	—	—	1	13	12	8	5	4	8	8
Diphtheria	67	63	40	61	83	84	81	61	70	26
Dysentery	—	—	6	6	1	1	3	4	1	—
Encephalitis Lethargica ...	—	—	—	1	—	—	—	—	1	2
Erysipelas	37	37	32	43	46	37	29	42	32	14
Jaundice, Acute Infective ... (Weil's Disease)	—	—	1	—	1	—	—	—	—	—
Ophthalmia Neonatorum ...	6	5	1	7	6	6	3	3	3	5
Pneumonia, Acute Influenzal	43	32	9	15	27	16	39	12	26	15
Pneumonia, Acute Primary	79	98	84	109	81	96	66	89	62	69
Poliomyelitis, Acute ...	—	1	—	1	1	1	—	—	—	—
Puerperal Fever	7	12	8	5	6	10	5	7	3	6
Puerperal Pyrexia	15	13	12	8	6	10	5	2	2	4
Scarlet Fever	192	131	85	66	52	198	288	138	187	182
Typhoid Fever	2	1	1	—	—	—	11	2	1	1
Para-typhoid B.	—	1	—	16	6	3	—	2	—	136
	448	394	280	351	328	470	535	366	396	468

PUERPERAL INFECTIONS.—Six cases of Puerperal Fever and four cases of Puerperal Pyrexia were notified. All were removed to hospital. There were no deaths from Puerperal Sepsis during the year.

OPHTHALMIA NEONATORUM.—Five cases were notified, one being removed to hospital. There was complete recovery in all cases.

CEREBRO-SPINAL FEVER.—Eight cases were notified and seven were removed to hospital. Only two of the cases were confirmed.

DIPHTHERIA ANTITOXIN.—Supplies are issued free to medical practitioners on request being made to the department. During 1946, 384,000 units were distributed.

IMMUNISATION.

During the year 387 children received preventive inoculation against diphtheria at the local authority clinic. The two dose method, 0·5 c.c. followed at four weeks interval by 0·5 c.c. of Alum Precipitated Toxoid, was used in all cases.

235 statutory declarations of conscientious objection to vaccination were received. For many years before the war the number of objectors per annum seldom fell below 400 or 40% of the total live births. During the war the numbers fell rapidly to the present level of 21% of the total live births. It may be that this increase in the number of vaccinations is indirectly the result of the large number of parents who have been vaccinated while serving with H.M. Forces, and who realising the dangers to which the unvaccinated may be exposed, desire to have their children likewise protected. There is, however, a considerable body of the public who confuse vaccination with immunisation against diphtheria, and the diphtheria immunisation campaign may have played its part in increasing the demand for vaccination.

BACTERIOLOGICAL SERVICE.

The bacteriological examinations are done in the County of Lanark Bacteriological Laboratory at Hamilton. The Table below gives details of the work done during the year. The total cost for the year was £327 3/-. This high figure was the result of the paratyphoid outbreak in the autumn.

TABLE No. 12.

BACTERIOLOGICAL EXAMINATIONS, 1946.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL
TUBERCULOSIS													
Sputa	38	40	25	25	29	41	29	25	28	26	30	36	372
Pleuritic Fluid	—	1	—	—	—	3	—	—	1	2	1	1	9
Cerebro-Spinal Fluid ...	2	1	—	2	—	—	2	—	2	—	—	1	10
Urine	—	2	2	2	1	1	3	2	6	—	—	1	20
Inoculation Tests ...	—	1	—	—	—	—	—	—	—	—	1	—	2
OTHER SPECIMENS.													
Swabs for Diphtheria ...	22	15	15	10	11	14	10	12	13	18	17	17	174
Cerebro-spinal Fluid ...	—	—	—	1	—	—	—	—	—	—	—	—	1
Blood, Faeces, Urine for Enteric	2	1	1	3	4	11	1	110	579	520	205	42	1479
Water	3	3	—	—	—	—	—	—	16	4	—	—	26
Milk	8	8	9	8	14	11	8	8	8	10	21	15	128
Swabs for Organisms ...	12	6	8	1	3	6	4	4	—	8	25	3	80
Swabs (Vincents Angina)	1	—	1	—	—	—	—	—	11	—	—	1	14
Blood Films	—	2	1	1	4	1	4	3	—	—	—	—	16
Others	1	—	—	1	—	—	—	—	5	9	—	4	20

OUTBREAK OF PARATYPHOID B FEVER.

In the autumn there occurred an alarming outbreak of paratyphoid B fever in the Greenend and Whifflet district, 142 confirmed cases being admitted to hospital with 2 deaths.

On 20th August Mrs. M., aged 46 years, was admitted to Coathill Hospital as a case of septicaemia. There was a history of malaise with fever for approximately one week before admission. Bacteriological examinations of the blood, stools and urine were negative. The case was labelled P.U.O. and treated accordingly.

On 21st August a girl (P.M.) of 4 years was admitted from a Glasgow Corporation I.D. Hospital as a case of scarlet fever, having previously been admitted from Coatbridge to the Royal Hospital for Sick Children, Yorkhill, on the 19th August and rediagnosed as scarlet fever. On the day of admission to Coathill her temperature was 101°F and she had typical rose spots on chest, back and abdomen. Her spleen was palpable. A provisional diagnosis of enteric fever was later bacteriologically confirmed as paratyphoid B fever.

On the 22nd a boy (J.D.) of 4 years with a history of seven days malaise and fever was admitted for observation, and on the 23rd (A.D.) aged 9 years, a brother of J.D., and a girl (M.I.) aged 11 years were admitted with similar symptoms. These three cases were also confirmed to be Paratyphoid B fever. A further specimen of blood from Mrs. M. was found to be positive.

As the existence of the outbreak was recognised the medical practitioners in the area were notified on 23rd August. The number of notifications rapidly increased and ultimately 155 cases including suspects were admitted to hospital. In 142 cases the diagnosis of paratyphoid B fever was confirmed. 134 of the cases were resident in Coatbridge, 7 in Airdrie and 1 in the County of Lanark. The notifications were spread over a period from 20th August to 11th October. The distribution is shown in the diagram in Table No. 13.

INVESTIGATION.

The only epidemiological factor common to the early cases was that all had consumed ice-cream from the same source. The premises on which the suspected ice-cream was made were visited on 24th August and its manufacture and sale stopped. Bacteriological examinations of specimens of blood, faeces and urine from all persons directly and indirectly connected with the business revealed that an employee W.D. who had been in full charge of the business for the three weeks preceding the 24th August was excreting B. paratyphosus B in his stools. His Widal reaction was negative. This employee was a male aged 41 years who had been employed as an unskilled worker in various industries, but since 1932 had intermittently hawked ice-cream in the East of Scotland. He began his present employment in November 1945, since when his work consisted of boiling, freezing the mixture and selling the ice-cream. Since 1st August, 1946, he had carried out all the processes, viz. preparing the mix, boiling, freezing and selling without any help. The only illness from which he had suffered was a mild attack of ' food poisoning ' in May, 1946, when he had diarrhoea for three days and was confined to the house for two days. He did not seek medical attention.

He was admitted to hospital for supervision on 29/8/46. He had no clinical signs or symptoms of disease. A specimen of blood taken on 9th September gave a positive Widal reaction for B para-typhosus B. He was discharged from hospital on 25/10/46 still excreting the organism in his stools but was kept under close observation. An examination of his stools on 19/12/46 was positive for B para-typhosus B.

The ice-cream was made in the back room of a shop formerly used as a cafe. The room had a concrete floor. There was a glazed earthenware sink with a single tap delivering water from the mains supply. At the fireplace there was a large coal-fired cast iron boiler used for the sterilization of utensils. The premises and utensils were scrupulously clean. The mixture was made in stainless steel pails and boiled in a gas fired copper boiler. The mixture was then poured into seamless pails of stainless steel with gauze covers. The pails were placed below the sink to cool. The mix was frozen in an electrically driven freezer using ice. The mix which was always boiled, was made from proprietary preparations to which on occasions were added other ingredients the nature of which although wholesome is better left unmentioned. It was stated that a cold mix was not used. No serious fault could be found with the premises or the utensils. The largest day's sales (16 galls.) were on Saturdays and Sundays ; smaller amounts (4 galls.) were sold on three days per week. A four gallon sale supplied about 400 customers, a sixteen gallon sale, 1400 customers. The ice-cream was sold from a tricycle carrying as required a two or four gallon container surrounded by ice. The usual form of spade and wafer holders were used, but a large number of cones were also sold. The wafers and cones were of a brand in widespread use.

With one exception all the primary cases regularly ate ice-cream from this source and had at least once eaten some between 1st and 23rd August. The exception was a female resident in Airdrie but employed in Coatbridge who was admitted to the Burgh of Airdrie Infectious Diseases Hospital on 23rd September suffering from paratyphoid B fever, That she had no connection with the Coatbridge outbreak was proved when the organism was found to be of phage type 2 whereas the organism in all the Coatbridge cases was phage type 1.

The vendor followed an established route from which he never departed, and all the cases were from houses distributed along the route excepting the few who had eaten the ice-cream while visiting the area.

It is a reasonable deduction that the vehicle of infection was the ice-cream. The main point at issue would appear to be the question of whether the vendor was an ambulant case of the disease infected by eating his own ice-cream, a conclusion which would appear to be supported by the bacteriological evidence or that his illness in May, 1946, was an abortive attack of paratyphoid B fever resulting in a carrier state. If we accept the former hypothesis the source of the contamination of the ice-cream remains unsolved, if we choose the latter the solution is obvious.

Taking the incubation period of para-typhoid B fever as 1-10 days and examining Table No. 14, which gives the date of sickening, it would appear that the infected ice-cream was sold on one day at least during the latter part of the week ended 10th August. No definite facts could be obtained from those cases not resident in the area which might have pointed to a particular day, and more detailed investigation was hindered by the direction of energy towards the problem of removal, hospitalization, and examination of suspected cases.

It is unfortunate that so popular food as ice-cream should have been responsible for such an outbreak, but the combination of fortuitous circumstances which caused it may never again occur.

TABLE No. 15.

PARATYPHOID FEVER.

Incidence of Cases in Infected Households.

Houses with 1 case	Houses with 2 cases	Houses with 3 cases	Houses with 4 cases	Total Houses
90	14	4	3	111

TABLE No. 16.

PARATYPHOID FEVER.

Size and Population of Houses Involved.

No. of Apts.	No. of Houses	No. of Cases	No. of Occupts.
1	7	10	29
2	39	44	204
3	43	60	281
4	11	14	89
5	10	13	85
Hoste	1	1	36
Totals	111	142	724

TABLE No. 13.

PARATYPHOID FEVER.

DATE OF NOTIFICATION.

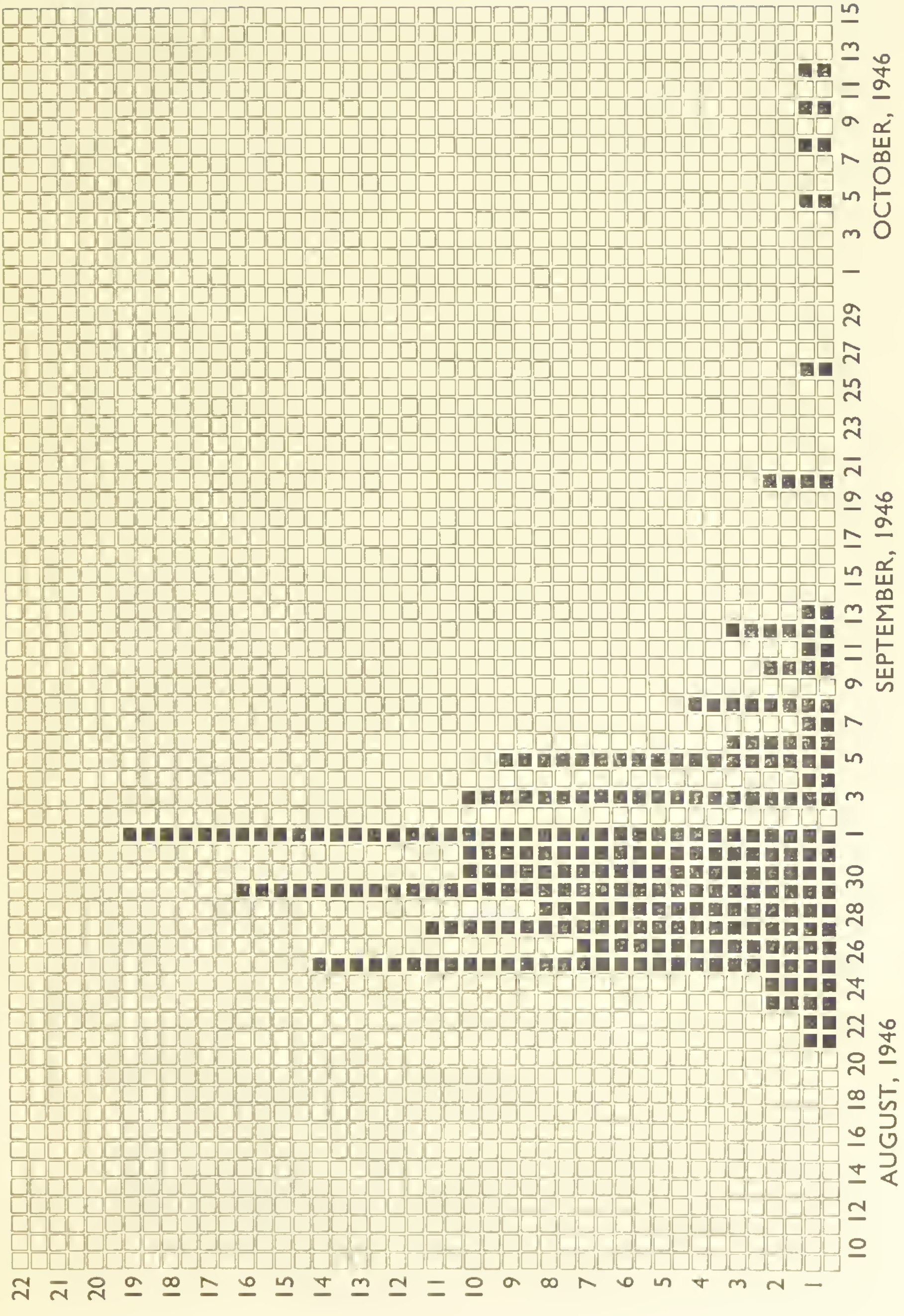

TABLE No. 14.

PARATYPHOID FEVER.

DATE OF SICKENING.

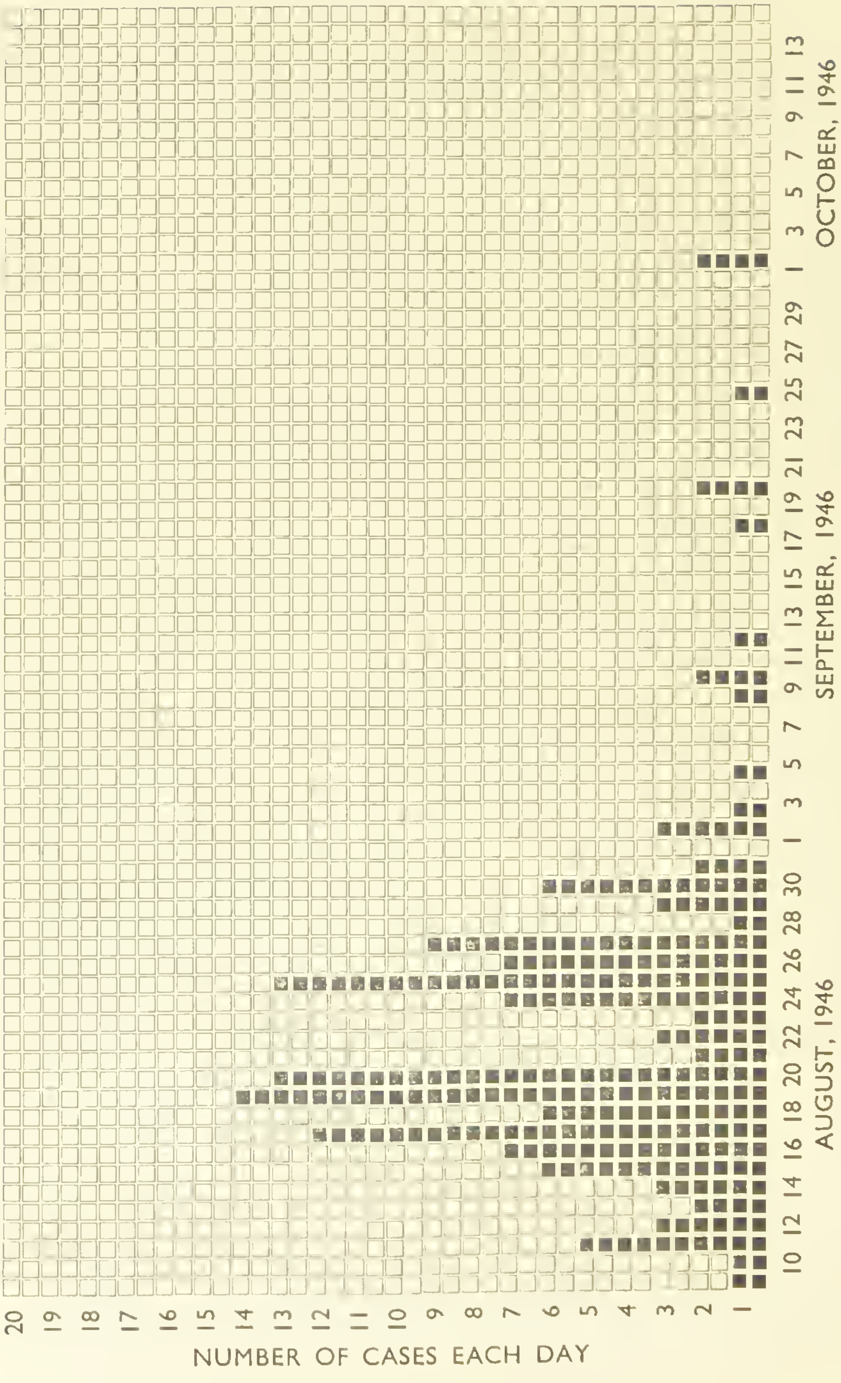

TABLE No. 17.

PARATYPHOID FEVER.

Sex and Age Grouping of Cases.

Age Groups	Male	Female	Total
Under 1 year	2	1	3
1 and under 5 years	18	27	45
5 ,, 10 ,, ...	16	17	33
10 ,, 15 ,, ...	12	14	26
15 ,, 25 ,, ...	5	4	9
25 ,, 35 ,, ...	3	7	10
35 ,, 45 ,, ...	0	5	5
45 ,, 55 ,, ...	1	5	6
55 ,, 65 ,, ...	2	1	3
65 ,, 75 ,, ...	0	1	1
75 and over	0	1	1
Totals	59	83	142

MOSQUITOES.

In the Report for 1941-45 reference was made to the prevalence of mosquitoes of a type (Taeniorhyncus richardii) capable of inflicting severe bites. In addition to Taeniorhyncus richardii many specimens of Theobaldia Annulata were obtained from many parts of the Burgh during the past year. All known breeding grounds were sprayed with D.D.T. Although not effecting complete extermination of the mosquitoes, results, as measured from reports from general practitioners of the number of persons treated for bites, justified the measure.

From personal observations it is obvious that the prevalence of mosquitoes in the Burgh is not an isolated local phenomenon but is part of a general increase in their numbers in many parts of the country. If they are to be eradicated, attack on their breeding haunts must be on a national scale. Their existence at many popular holiday places is not only a nuisance to the local inhabitants but will have an adverse influence on the prosperity of the tourist trade.

WATER SUPPLIES.

The water authority for the Burgh is Airdrie, Coatbridge and District Water Board. The Board's area of supply comprises the Burghs of Airdrie and Coatbridge and portions of the County of Lanark and the City of Glasgow. The reservoirs are situated at Roughrigg in the Parish of Shotts and Cowgill in the Parish of

Lamington. The capacities of the reservoirs are: Roughrigg, 568 million gallons, Upper Cowgill, 221 million gallons, and Lower Cowgill 42 million gallons. The gathering ground at Cowgill is remote from habitation, the water is free from pollution and is of excellent quality. It is unfiltered but is chlorinated.

The gathering ground at Roughrigg is not so favourably situated. The main feeder (the Shotts Burn) flows close by the village of Salsburgh and is liable to fairly heavy pollution. Notwithstanding this fact the bacteriological analyses of the raw water have been satisfactory. Nevertheless, visual evidence of pollution is sufficient to warrant the utmost vigilance and the adoption of the most stringent measures to prevent the passage of impure water to the consumer. The slow sand filters at Roughrigg are much too small in area to be of any use, and reliance is placed on chlorination to effect the necessary purification.

The area of the filters, 3302 square yards, has remained unaltered for the past forty years. During that period domestic and industrial consumption has greatly increased and at the present time Roughrigg supplies little short of 3,500,000 gallons per day. To pass this water into the mains requires a filtration rate between 9″ and 10″ per hour, which is very much in excess of the accepted maximum of 4 inches per hour for water of this type. It is useless to operate slow sand filters at this unduly high speed. It would appear that the problem can only be solved by increasing the area of the filters, or, if the engineering problems can be overcome, by substituting rapid sand filtration for the present method

During the year 72 samples of water taken from various points of the distribution system conformed to the required standards.

VENEREAL DISEASES.

The treatment centre at Coathill Hospital which forms part of the joint Burghal and County Scheme, operated satisfactorily during the year. 88 new cases attended and the total attendances for all patients was 1508.

No notices under Defence Regulation 33B were received.

DIABETES.

On request from the doctor in attendance diabetics are referred to the Diabetic Clinic at the County Hospital, Motherwell. Table No. 18 gives details of work done under this service.

TABLE No. 18.

Number of Diabetics attending	5
,, First Visits	4
,, Revisits	18
Quantity of Ordinary Insulin issued	17,500 units
,, Protamine Zinc Insulin	40,400 units
Number who received Insulin free of cost	5
,, ,, at reduced cost	2
,, ,, at cost	2

CANCER.

No provision has been made under the Cancer Act, 1939.

MENTAL HEALTH SERVICES.

From time to time very great difficulty arises in obtaining institutional accommodation for mentally defective children under five years of age. Such cases are dealt with by the Social Welfare Department who ultimately find some solution to the problem. Institutional accommodation is provided for all other cases by the Lanarkshire Mental Hospital Joint Committee.

HEALTH EDUCATION.

The main method used is the displaying of posters issued by the Scottish Council for Health Education. It is very difficult to assess the value of this method for general health education, but the repsonse of the public to appeals for diphtheria immunisation would suggest that it is worth continuing.

On 15th December, 1946, a film show and a talk on general health by a doctor was given in a local cinema. 850 persons attended and the meeting was very successful. There is, however, a very difficult problem which confronts the organiser of health shows in a town such as Coatbridge in that much of the advice given cannot be carried out. It is fatuous to lecture to people on the habits of health when so many live under conditions which make it impossible for them to cultivate these habits. Apart from this aspect altogether, I am strongly of the opinion that if health education is to have any real success it must form part of the ordinary school curriculum.

REGISTRATION OF NURSING HOMES.

There are no Nursing Homes within the Burgh.

AMBULANCE FACILITIES.

This service remains as in former years. There is one ambulance stationed at Coathill Infectious Diseases Hospital, which is mainly used for the removal of cases of infectious disease. Since the establishment of the Orthopaedic Scheme there has been an increased demand for its use for transporting orthopaedic cases to the out-patient clinics. At times this demand cannot be met and it has been necessary to hire a car for non-stretcher cases. While there is a definite need for a car for sitting cases the numbers do not justify the whole time use of such a vehicle. The present method of engaging a car when necessary proves satisfactory and is not too costly.

ORTHOPAEDIC FACILITIES.

In June, 1944, the Town Council agreed to participate in an orthopaedic scheme to cover Lanark County and Burghs. The scheme provides facilities for those cases for which the Local Authority has statutory powers to treat. A number of beds are available in Stonehouse Orthopaedic Hospital and a few in the Victoria Annex at Philipshill. The main clinic is held at the County Hospital, Motherwell, and a subsidiary clinic at Coatbridge serves Airdrie, Coatbridge and the surrounding district. There were 14 new cases and the total attendances were 105.

In April, 1944, in response to a request from the Directors of the Royal Infirmary, Glasgow, accommodation in the Public Health Department premises was made available for their fracture clinic. This clinic, under the auspices of the Royal Infirmary Rehabilitation Department, is held weekly and serves the Burghs of Coatbridge and Airdrie, and part of the County of Lanark. These facilities have been greatly appreciated by many people who are relieved of the necessity of travelling to Glasgow.

THE SICK POOR.

The arrangements for the medical treatment of the Sick Poor remain unchanged. Cases requiring institutional treatment are accommodated in the hospital block at the Old Monkland Home. Cases which require domiciliary treatment receive medical attention from the Social Welfare Medical Officer. Nursing attention is supplied by arrangement with the Coatbridge and District Nursing Association. Table No. 19 shows details of the work done in 1946.

TABLE No. 19.

TOTAL NUMBER ON ROLL AT 1ST JANUARY, 1946 :—

		Adults	Dependents
Ordinary Roll		815	1071
Able Bodied Roll		3	12
		818	1083
Number of Applications during year ...	1692		
Number of Admissions to Old Monkland Home	485		
Number of Admissions to Hartwood Asylum	20		

TOTAL NUMBER ON ROLL AT 31ST DECEMBER, 1946 :—

	Adults	Dependents
Ordinary Roll	749	1000
Able Bodied Roll	4	16
	753	1016

NUMBER OF BOARDED OUT CHILDREN AT 31ST DECEMBER, 1946 :—

Private Dwellings	Institutions
31	37

TUBERCULOSIS.

The death rate from Tuberculosis (1·28 per 1,000) is the highest since 1929. While this increased death rate is largely the result of the higher incidence of the disease, the delay in admission to hospital is an important contributory cause.

The local hospital has accommodation for twenty-eight cases of pulmonary disease (14 males and 14 females). This number of beds was in 1941 supplemented by twenty-six beds in other institutions. At the end of 1946 as a result of difficulty in staffing that number had fallen to eleven. There are no prospects of additional beds, indeed the likelihood is that there will be further reductions ; and it is most disheartening to see the prospect of cure for early cases of pulmonary disease gradually fade through this lack of accommodation.

The accommodation for non-pulmonary cases is happily more satisfactory. These cases are treated in St. Andrew's Home, Millport, and the County Orthopaedic Hospital, Stonehouse.

Seventy-four cases of pulmonary and thirteen cases of non-pulmonary tuberculosis were notified during the year. The corresponding figures for last year were sixty-three and twenty-three respectively. The number of pulmonary cases is the highest for the past twenty years. Table No. 20 gives a very rough occupational grouping of the pulmonary cases, notified during the year. The high rate of notification among children will be noted. The majority of these cases show no clinical signs of disease other than positive tuberculin test and radilogical evidence of enlarged mediastinal glands.

TABLE No. 20.

OCCUPATIONAL GROUPING OF NOTIFIED PULMONARY CASES.

Children	17	Housewives	8
Labourers	9	Miners	2
Iron and Steel Trades ...	6	Other Occupations ...	19
Shop Assistants	5		

TABLE No. 21.

RETURN OF CASES OF TUBERCULOSIS NOTIFIED DURING THE YEAR.

	NUMBER OF CASES NOTIFIED AS SUFFERING FROM TUBERCULOSIS. AGE GROUPS									No. of cases notified during year in which diagnosis of Tuberculosis has been confirmed	
	Under 5	5–10	10–15	15–25	25–35	35–45	45–65	65 Upw'd	Total	Under 15	15 and Upw'd
	1	2	3	4	5	6	7	8	9	10	11
PULMONARY.											
Males ...	4	1	1	6	10	6	10	1	39	6	33
Females ...	4	6	1	9	12	2	1	0	35	11	24
Total ...	8	7	2	15	22	8	11	1	74	17	57
NON-PULMONARY.											
Males ...	4	1	0	0	0	0	0	0	5	5	0
Females ...	0	2	1	2	3	0	0	0	8	3	5
Total ...	4	3	1	2	3	0	0	0	13	8	5
PULMONARY AND NON-PULMONARY											
Males ...	8	2	1	6	10	6	10	1	44	11	33
Females ...	4	8	2	11	15	2	1	0	43	14	29
Grand Total ...	12	10	3	17	25	8	11	1	87	25	62

TABLE No. 22.

NUMBER OF CASES WHICH RECEIVED TREATMENT UNDER THE TUBERCULOSIS SCHEME IN SANATORIA OR OTHER INSTITUTIONS DURING THE YEAR.

		In Instit. on Jany. 1st	Number of Patients		Died in the Instit.		In Instit. on December 31
			Admitted during Year	Discharged during Year			
		1	2	3	4	5	6
Pulmonary.							
Adults	Males	18	22	17	0	9	14
	Females	25	27	26	0	5	21
Children.	Males	1	0	1	0	0	0
	Females	1	2	2	0	0	1
Non-Pulmonary.							
Adults.	Males	6	1	4	0	0	3
	Females	3	4	1	0	0	6
Children.	Males	11	3	8	0	0	6
	Females	3	1	1	0	0	3
Total	... ...	68	60	60	0	14	54

In final residence under 28 days. (Column 4)

In final residence 28 days or over. (Column 5)

TABLE No. 23.

NUMBER OF PERSONS RESIDENT IN THE AREA AT 31st DECEMBER, 1946, WHO ARE KNOWN TO BE SUFFERING FROM TUBERCULOSIS.

		Number of Cases. Age-Groups.								
		Under 5	5–10	10–15	15–25	25–35	35–45	45–65	65 & Up	TOTAL
PULMONARY										
1. Sputum not present.	Males ...	5	15	9	15	33	19	24	2	122
	Females	1	12	14	41	43	15	8	1	135
2. Sputum present but not examined.	Males ...	0	0	0	1	3	2	5	3	14
	Females	0	0	0	1	3	1	2	1	8
4. Sputum examined and tubercle bacilli found	Males ...	0	0	0	12	11	12	7	0	42
	Females	0	0	0	7	12	3	2	0	24
4. Sputum examined and tubercle bacilli never found.	Males ...	0	0	0	2	6	3	4	0	15
	Females	0	0	0	3	1	0	2	0	6
		6	27	23	82	112	55	54	7	366
NON-PULMONARY.										
1. Abdominal	Males ...	0	0	2	5	0	0	0	0	7
	Females	0	0	3	5	1	1	0	0	10
2. Spine.	Males ...	0	1	2	1	1	1	1	0	7
	Females	0	0	0	4	5	1	0	0	10
3. Bones and Joints (exclusive of Spine).	Males ...	1	7	5	11	4	0	1	0	29
	Females ...	0	4	3	6	4	1	4	0	22
4. Superficial Glands.	Males ...	1	5	8	10	5	2	0	0	31
	Females	2	6	7	7	8	6	5	0	41
5. Lupus.	Males ...	0	0	1	0	0	0	0	0	1
	Females	0	0	0	0	1	1	1	0	3
6. Other parts or organs.	Males ...	3	2	0	2	3	2	1	0	13
	Females	0	3	5	2	3	1	0	0	14
Total	... ...	7	28	36	53	35	16	13	0	188
PULMONARY AND NON-PULMONARY TOTAL	... ...	13	55	59	135	147	71	67	7	554

TABLE No. 24.

NUMBER OF PERSONS WHO DIED FROM TUBERCULOSIS IN THE AREA DURING YEAR.

	Pulmonary		Non-Pulmonary	
	Males	Females	Males	Females
Number of persons who died from Tuberculosis of whom :—	29	22	4	3
Not notified or notified only at death or after death	6	2	2	3
Notified less than one month before death	0	2	0	0
,, from 1 to 3 months ...	4	1	0	0
,, 3 to 6 months ...	2	3	0	0
,, 6 to 12 months ...	4	1	0	0
,, 1 to 2 years	2	4	1	0
,, over 2 years	11	9	1	0
Number who died within 28 days after discharge from an Institution	7	6	0	0
Number who died more than 28 days after discharge from an Institution	0	1	0	0

TABLE No. 25.

DOMICILIARY VISITS BY TUBERCULOSIS NURSES.

First Visits	Revisits
84	679

TABLE No. 26.

ATTENDANCES AT TUBERCULOSIS DISPENSARY.

	First Visit	Re-Visit
Pulmonary Tuberculosis	36	391
Tuberculous Adenitis	2	173
Tuberculous Bone and Joint	3	56
Tuberculous Kidney	0	22
Lupus	0	48
Observation	156	329
	197	1019

NUTRITION.

Meals for Expectant Mothers.—In June, 1944, I submitted to the Public Health Committee a report embodying recommendations in terms of D.H.S. Circular No. 61/1944 on Infant Mortality. The Committee unfortunately gave no authority to put the recommendations into operation.

In March, 1946, the report was reconsidered, and the Committee agreed to establish a scheme to provide one main meal daily for expectant mothers. The scheme began on the 29th April, 1946. The meals were provided free of charge to the mothers at the British Restaurant. The following details indicate the progress of the scheme up to 31st December, 1946.

Number of Expectant Mothers	186
Number of Vouchers issued	508
Number of Dinners supplied	4780
Average number of Meals per Mother	25·7
Total Cost	£318 13s. 4d.

Issues of Vitamin Products.—The preparations supplied by the Ministry of Food are issued from special depots and not through the Welfare Clinics. This method was adopted to avoid congestion at the Clinics. Table No. 28 shows the amounts distributed during the past year. The amounts are expressed as a percentage of the potential up-take and the figures for the West of Scotland and the United Kingdom are given for comparative purposes. Table No. 27 shows the amount of foods and vitamin supplements issued from Child Welfare Clinics.

TABLE No. 27.

Dried Milk	16,230 lbs.
Malt and Oil Products	4,143 lbs.
Vitamin Glucose	1,344 lbs.
Vitamin A and D Oil	480 ozs.
Cereals	120 lbs.

TABLE No. 28.

ISSUES OF MINISTRY OF FOOD VITAMIN PRODUCTS 1946.

		ORANGE JUICE		COD LIVER OIL		A and/D TABLETS	
		Actual Weekly	% Potential	Actual Weekly	% Potential	Actual Weekly	% Potential
Jan.	Coatbridge ...	1036	39·21	206	26·28	30	34·09
	West of Scotland		25·36		17·20		23·75
	United Kingdom		39·4		19·3		34·50
Feb.	A.	1278	47·97	236	29·80	33	37·50
	B.		33·1		19·57		30·68
	C.		37·7		23·5		40·5
Mar.	A.	1386	51·58	206	25·78	36	40·91
	B.		37·06		18·88		30·99
	C.		40·8		23·2		42·9
Apr.	A.	1132	40·79	177	21·93	27	34·18
	B.		30·65		14·07		26·75
	C.		47·00		22·40		44·60
May	A.	1116	42·73	160	19·63	35	40·23
	B.		33·05		13·43		26·18
	C.		43·6		16·20		35·40
June	A.	1166	42·22	144	17·50	28	31·46
	B.		34·96		13·52		24·08
	C.		43·80		16·50		32·90
July	A.	1180	40·80	166	20·05	24	26·97
	B.		31·27		12·06		22·47
	C.		51·20		16·10		35·50
Aug.	A.	867	32·17	251	31·49	39	41·05
	B.		34·06		22·50		35·87
	C.		42·20		26·50		45·00
Sept.	A.	824	30·82	262	33·21	41	43·16
	B.		29·99		24·97		33·39
	C.		38·10		30·20		46·70
Oct.	A.	929	34·90	324	41·30	51	53·70
	B.		31·30		28·70		43·30
	C.		38·9		33·8		53·9
Nov.	A.	766	28·5	256	32·9	49	47·1
	B.		27·5		29·5		39·5
	C.		37·0		36·0		50·3
Dec.	A.	834	30·6	283	35·6	40	38·5
	B.		25·6		28·8		33·1
	C.		33·0		31·2		41·1

A = Coatbridge. B = West of Scotland. C = United Kingdom.

HOSPITALS.

The three hospitals administered by the Burgh are Coathill Infectious Diseases and Tuberculosis Hospital, the hospital wards at Old Monkland Home and the Coatbridge and Airdrie Maternity Hospital.

COATHILL I.D. AND TUBERCULOSIS HOSPITAL. STATEMENT FOR YEAR 1946.

DISEASE.	In Hospital last day Dec., 1945	Adm'td during Year	Disch'd during Year	Died during Year	Treated during Year	Rem'ing on last day Decem. 1946
Diphtheria	3	21	22	0	24	2
Erysipelas	1	4	5	0	5	0
Pneumonia	2	65	58	4	67	5
Scarlet Fever	17	129	124	0	146	22
Tuberculosis (Pulm.) ...	26	30	23	12	56	21
Tuberculosis (Non-Pulm.)	0	0	0	0	0	0
Observation ... ... and other Diseases	2	32	33	1	34	0
Paratyphoid B. Fever	0	69	68	0	69	1
Meningitis	0	11	8	3	11	0
TOTAL	51	361	341	20	412	51

COATBRIDGE AND AIRDRIE MATERNITY HOSPITAL.

The staffing problem in this hospital has been more acute during the year. Any further detoriation in the position will make it impossible to keep the hospital in operation.

STATEMENT FOR THE YEAR 1946.

	Total Admiss'ns	Ante-natal Cases	No. of Infants born	Maternal Deaths	Deaths of Infants under 8 days
Coatbridge Cases ...	316	15	306	0	4
Airdrie Cases	180	11	170	0	4
Totals	496	26	476	0	8

APPENDIX.

OLD MONKLAND HOME.

ANNUAL REPORT FOR YEAR 1946.

In accordance with the circular issued by the Department of Health, I beg to submit my report for the year, 1946.

SICK WARDS. (Male—There are 34 beds for acute and chronic cases, including 2 beds in a small side ward, which is used for cases of malignancy and sepsis.

The Female Wards have 33 beds disposed as follows :—

One Ward with 7 beds.
One Ward with 7 Beds.
One Ward with 8 Beds.
One Ward for Mental Defectives—6 Beds.
Maternity Emergency Ward—1 Bed and 1 Cot.
Nursery—1 Bed and 8 Cots.
Mother's Room—3 Beds and 2 Cots.

Heating and Lighting are satisfactory in all Wards.

INFECTIOUS AND CONTAGIOUS CASES are isolated at probationary and treated prior to admission to house or hospital as indicated.

STAFF. Miss WEST, Matron.
Nurses—1 State Registered and 3 unregistered.

Surgical and Medical major cases are treated at Glasgow Infirmaries or Alexander Hospital.

DIET. The diet is adequate but lacking in variety. This has been remedied as far as is consistent with rationing, available kitchen equipment and the number of inmates. This is one of the difficult problems of the institution, especially as the inmates are often old and generally debilitated. I recommend tripe and mince as often as possible as patients are often edentulous. Frequent discussions have taken place between Governor, Doctor, and Matron on this vexed question.

		Adm.	Dis.	Died	Remaining
CHILDREN.	Boys	12	8	2	2
	Girls	6	6	0	Nil

I have no recommendations to make at present.

A. M. GOLDIE, M.B., Ch.B.

STATEMENT FOR YEAR.

Number of Patients—Men, 91 ; Women, 45 ; Total 136.
Average for the Year—45.
Maximum for Year—58 on 27th July, 1946.
Minimum for Year—25 on 22nd January, 1946.
Confinements—2.